A novel binary vote assignment grid quorum algorithm for distributed database fragmentation

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ABSTRACT
Data replication is one of the mechanisms in data grid architecture since it improves data access and reliability. Therefore, the storage, availability, and consistency are important issues to be addressed in order to allow distributed users efficiently and safely access data from many different sites. This paper propose a new algorithm namely Binary Vote Assignment on Grid Quorum (BVAGQ) in order to handle data replication and transaction management. We address how to build reliable system by using the proposed BVAGQ algorithm for distributed database fragmentation. The result show that managing replication and transaction through proposed BVAGQ able to prepare data consistency.

KEYWORDS:
Data replication; Replication algorithm; Fragmentation; BVAGQ data grid

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